

# Slovak Economic Association Meeting (SEAM 2022)

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in cooperation with the University of Economics in Bratislava



# **Book of abstracts**





#### Session I., Stream A: Economic growth I.

# Economic and Institutional Effects of Populism

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While much research has been done on the causes of populism, consequences of government takeovers by populist parties remain under-researched. Contributions on institutional effects are primarily centered around indicators of liberal democracy while a research string on economic effects has only begun to develop recently. This paper simultaneously contributes to the broad field of research on consequences of populism and to specific research on the countries under consideration by quantitatively analyzing and comparing five cases: Hungary, Czechia and Poland are considered as main CEE populist-led countries, Slovakia & Austria are added having populist-influenced governments. For empirically estimating the impact of populist government takeovers on key economic and institutional variables, the synthetic control method and difference in-difference analysis are used. The results show that scores for indicators related to quality, reactiveness and anti-corruption efforts of governments predominantly declined. Those observations stand in stark contrast to converse core promises made by all considered populist parties. For economic variables, results are mixed, with negative trend regarding GDP p.c. and productivity in Hungary, moderately positive developments in Poland and scant significant observations in Czechia. The policy context introduced in the qualitative part allows analyzing potential connections to host ideology, unconventional economic policy, direction of fiscal & social policy as well as economic performance of predecessors. The consideration of Austria and Slovakia as well as an earlier, populist-involving, Czech coalition government illustrates key differences between the impact of populist-led and populist-influenced governments. Furthermore, the employment of two methods and varying controls allows methodological comparisons.

# The effects of holiday vouchers on domestic tourism: evidence from a voucher program for public sector employees in Romania

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Voucher programs have emerged as key policy instruments for supporting sectors hit by the COVID-19 crisis, like tourism, and for addressing a range of emerging social issues. Despite high policy interest, there is limited econometric evidence on their effectiveness in addressing these problems. We study the impact of holiday vouchers on the development of the domestic tourism sector, by estimating the effects of a change in the provision of holiday vouchers in Romania in 2018. It made mandatory the provision of holiday vouchers for all public sector employees, who represent 19% of all employees and, who, for the most part, have not received holiday vouchers since 2009. This provision led to a sudden, eightfold, increase in the value of holiday vouchers issued. We estimate the effects of this policy on firms in eligible accommodation and travel agency sectors using difference-in-difference methods and data on holiday voucher payments from the three issuing units and administrative data on the balance sheets of the firms in eligible sectors. We find that the provision of holiday vouchers to public sector employees had large effects on firm revenues and smaller, but significant effects, on employment of the exposed firms. The benefits were widespread in the economy, but differed across regions. In the most touristic regions, the provision of holiday vouchers mainly increased firms' revenues, while in the other regions it increased both revenues and employment.

# The role of government in promoting innovation in selected countries

#### Matej Boór

Since time immemorial, government has played an important role in fostering University of Economics in Bratislava innovation, and this is no different today. The government uses a number of innovation policy instruments to promote innovation, and we pay particular attention to these instruments in this article. An important aspect is the fact that government innovation policy can on the one hand promote innovation and the creation of new patents, but on the other hand it can also stifle innovation if it is misguided. The purpose of this paper is to assess the role of government in fostering innovation and what role it has played in important milestones associated with industrial revolutions in selected countries. At the same time, the present paper attempts to formulate recommendations for the government regarding the design and implementation of innovation policy.

#### Session I., Stream B: Health economics

# Strategic interactions in regulated markets: behavior of healthcare providers in Slovakia

#### Peter Mandžák

Útvar hodnoty za peniaze, MF SR

#### Martin Labaj

University of Economics in Bratislava

In this paper we study entry decisions of physicians, pharmacies, dentists and pediatricians in Slovakia in the presence of strategic interaction of other profession. Results from a bivariate ordered probit model suggest that GPs, pharmacies, pediatricians, and dentists provide mutually complementary services. Nevertheless, the effects are asymmetric in size. We conclude that GPs are the most robust complement for all examined specialists. Entry thresholds tend to decrease by 70-80 % with the presence of the GP. Results of counterfactual analysis suggest that better coverage of GPs in the market (where the model predicts that at least 1 GP is missing) would lead to the entry of 176 pharmacies.

# COVID-19 epidemic in Slovakia through the lens of a parsimonious behavioral SIR model

#### Michal Marenčák

National Bank of Slovakia

This paper presents a parsimonious behavioral SIR model with compartments for hospitalized and vaccinated shares of population, contagion among vaccinated and immunity loss. A model variant with vaccination, the transmission rate endogenously responding to the share of hospitalized patients, seasonal variation and pandemic fatigue matches the epidemic evolution from July 2020 to February 2022 in Slovakia remarkably well. We find that vaccination, despite being among the slowest in the EU, reduced the death toll in Slovakia by up to 18,500 deaths. Assuming the pace of EU countries with the highest vaccination rates lowers the cumulative deaths by another 8,000.

# Impact of the COVID-19 pandemic on the Manufacturing PMI

#### Martin Vozár

Faculty of Management, Comenius University.

Jana Kajanová

This paper explores the impact of COVID-19 (deaths and cases) on the economies of seven countries (Brazil, China, Germany, India, Japan, the United Kingdom, and the United States of America) through the regression analysis. Using data on the Department of Economics and Finance monthly development of COVID-19 deaths and cases in the analyzed countries and the Manufacturing Purchasing Managers' Index between January 1st, 2020 and June 30th, 2021, we have discovered that the results document a higher correlation and dependence between the monthly percentage change in the Manufacturing PMI and Faculty of Management,monthly percentage change in the number of COVID-19 deaths (compared to cases);Comenius University.thus the number of COVID-19 deaths has a bigger impact on the economies than theDepartment of Economics and Finance number of COVID-19 cases.

#### Katarína Rentková

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# The Impact of Lockdown during COVID-19 on Abortion-Seeking Behavior in Spain

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We estimate the impact of lockdown during the first wave of the COVID-19 pandemic on abortion-seeking behavior in Spain. We exploit the unexpected announcement and immediate implementation of a strict, nationwide lockdown which started in mid-March 2020 and lasted for 8 weeks. We explore two channels through which lockdown could have affected the need for and access to abortion services in Spain: limited social interactions and a potentially lower accessibility of health care services. We find evidence that due to a decrease in social interactions, the number of unwanted pregnancies conceived during lockdown fell by 45% among affected women. We do not find any effect on the supply side: neither travel restrictions nor overcrowded hospitals seem to have altered the accessibility of abortion services in Spain. In future work, we plan to explore also the third channel through which lockdown could have affected abortion-seeking behavior – the demand for abortion services.

# Chain Formation and Consumer Welfare on the Retail Pharmacy Market

### Jakub Červený

Institute for Health Care Analyses, Ministry of Health of the Slovak Republic

#### **Richard Kališ**

 $University \ of \ Economics \ in \ Bratislava$ 

#### Biliana Yontcheva

Dusseldorf Institute for Competition Economics and CEPR The present paper evaluates the effect of deregulated ownership and horizontal integration on the retail pharmacy market. Using data on the full population of reimbursed prescriptions in Slovakia in 2017, we examine whether outlets of pharmacy chains perform better than their independent counterparts in terms of consumer preferences and operating costs. Our preliminary findings indicate that consumers perceive pharmacy chains as having higher quality on average than independent outlets, although there is substantial heterogeneity in the effects, both across chain brands and across consumer types. In addition, we find that chains perform better in terms of average labor productivity. After accounting for differences in expected demand and labor costs, we do not find substantial differences in the fixed cost of entry.

#### Session I., Stream C: Labor markets I.

# Should I stay or should I go? Transitions to inactivity in Poland

### Olga Zajkowska

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### Paweł Strawiński

University of Warsaw

#### Paulina Broniatowska

University of Warsaw

Given the aging population in Poland, one of the main long-term policy challenges is retaining labour force in activity. We use panel LFS data covering pre-COVID period 2010-2019 to estimate employment outflows probabilities. We show that factors keeping individuals in employment depend on the moment of their life cycle. We show that outflows depend not only on education and the experience in the labour market but also on family arrangements and work-life balance preferences. We discuss the role of labour market institutions (like retirement age) and if agriculture is a buffer for job loss in rural areas.

# Technology and Skill Demand: Labor Market Polarization in European Countries

#### Martin Lábaj

 $University \ of \ Economics \ in \ Bratislava$ 

#### Matej Vitáloš

University of Economics in Bratislava

This paper adds new evidence on labor market polarization in Europe driven by technological change. In particular, it studies the relationship between displacement and reinstatement effects caused by automation and new tasks on the one hand and the demand for skills on the other. The analysis focuses on European countries and its results suggest that technological progress leads to labor market polarization, as the medium-educated workers are the ones left behind. Importantly, automation and new tasks seem to widen the wage gap between highand medium-educated workers rather than leading to relative employment changes. It is also shown that labor market polarization among men has probably a different driver (automation) compared to women (creation of new tasks). We also document the distinct impact of technological change on white-collar workers.

# Dreaming of Leaving the Nest? Immigration Status and the Living Arrangements of DACAmented

### Jakub Lonsky

University of Liverpool

#### Rania Gihleb University of Pittsburgh

#### **Osea Giuntella** University of Pittsburgh

This study investigates the effects of the Deferred Action for Childhood Arrivals (DACA) on the living arrangements and housing behavior of undocumented immigrants in the U.S. Using an event-study approach and difference-in-differences (DID) estimates, we compare immigrants above and below eligibility cutoffs and demonstrate that after the adoption of the policy in June 2012, DACA-eligible immigrants were less likely to live with their parents or in multigenerational households (-11%) and more likely to live independently (+15.5%). We also reveal that DACA-eligible immigrants were less likely to live in the same house (-2%) and more likely to move out of ethnic enclaves (+8%). Notably these patterns are not explained by the known effects of DACA on income and employment outcomes. Lower rental costs (-4.5%) may have facilitated this transition into adulthood and the observed trends in living arrangements. DACA also led to a decline in marriage rates among DACA-eligible individuals, while we found no evidence of significant effects on cohabitation, divorce, and intermarriage. We also found no evidence of a clear impact on fertility.

# The corona-inducted shift towards intermediate digital skills across

#### Brian Fabo

 $Central\ European\ University$ 

We analyse the impact of the Covid-19 pandemic on the demand for intermediate digital skills in Slovakia on the basis of half a million job adverts from the leading job website in the country Profesia.sk. We identify a major increase of demand for office and teleworking (Zoom, MS Teams, Cisco Webex) software, but mainly limited to Clerical Support Workers and Managers. We identify the increase was particularly pronounced in small firms, which are likely more nimble and thus more likely to modify their job postings. The increase appears to remain sustained even after the end of lockdowns, suggesting possible permanent shift to working from home. If the shift to working from home remains permanent, it might lead to a deepening digital divide between workers whose work is possible to be performed from home and service or blue collar workers, who are by the nature of their jobs unable to take advantage of this shift.

#### Session I., Stream D: : Behavioral and experimental economics I.

# Behavioral aspects of individual investment decision-making

#### Martin Stachoň

Masaryk University

Behavioral finance studies revealed many aspects that influence individual investment decisions. At the same time, no unifying theory exists to capture these phenomena and explain their structure. Based on four follow-up studies, this paper creates a method that captures the behavioral aspects of individual investment decisions that are measurable based on actual decisions. It gradually collects evidence of the validity and reliability of the generated method using exploratory and confirmatory design, including the predictive validity of the method within individual investment decisions. This draft predominantly presents the first study, focusing on the explorative design of questionnaire measurement of selected investment aspects.

# Do Fixed-Prize Lotteries Crowd Out Public Good Contributions?

#### Tomáš Miklánek

Prague University of Economics and Business

### Peter Katuscak

RWTH, Aachen

Fundraising for public goods by private contributions is often undermined by freeriding. One prominent mechanism suggested to alleviate problem of free-riding is a fixed-prize lottery with winning probabilities proportional to individual contributions (Morgan, 2000; Morgan and Sefton, 2000). Yet, as extensively documented by economic experiments, subjects often contribute even in the absence of incentives of this kind, suggesting that their contributions are driven social preferences. This raises a question of how the lottery incentive interacts with social preferences. We present an experiment in which we de-couple the contribution effect of own prize seeking from the potential crowding out effect due to the perception that the others contribute because of their prize seeking, rather than to benefit the group. Even though the lottery increases contributions relative to the voluntary contribution case, we find that it also crowds out voluntary contributions that are likely driven by social preferences. This crowding out effect might crucial for covering the lottery prize, when it is financed by additional contributions.

# **Intertemporal Coordination in Volunteer Markets**

Matej Lorko Ekonomická Univerzita v Bratislave

Maroš Servátka Macquarie Business School

**Robert Slonim** University of Technology Sydney

Michal Duriník

Masaryk University

Research on altruism focuses on static conditions despite many contexts featuring dynamic spillovers that exacerbate the difficulties when coordinating supply and demand in the absence of prices. For example, providing voluntary help in one period often prohibits helping in a fixed number of subsequent periods (e.g., blood donation restrictions). We show that the intertemporal inability to help lowers market surplus compared to the static condition and study whether providing demand or supply information improves market outcomes. We find that in theory demand information causes higher market surplus in static than dynamic conditions, while supply information causes higher market surplus in dynamic than static conditions. Experimental results support almost all theoretical predictions and show that supply information especially improves market efficiency in dynamic conditions. The most critical takeaway is that comparative static inferences in static conditions do not carry over into dynamic conditions (and in this case are opposite).

# Luck and fairness in a dictator game: experiments with children

#### Jana Vyrastekova Radboud University

How do children divide a jointly produced pie when individual productivities were assigned at random? Via a modified dictator game we study whether children allocate more to those who contribute more in the production stage, even if individual productivities were affected by luck. We focused on the age range 8 to 11 years, when children develop more complex theories of fairness. Our first observation is that children dictators most often divided the produced pie equally, but they also frequently deviated self-servingly from this strategy. Our second observation was that children's decisions were not affected by the veil of ignorance in the production stage. Children did not refrain from a self-serving behavior more often when they got a chance to experience what it is like to be in someone else's shoes. Third, children's moral convictions were heterogeneous and mostly self-serving: they did not hold oneself accountable for contributing a lower share to the pie to be divided, but did not refrain from benefiting when contributing a higher share of the resources. Children thus did not express moral convictions that would differ from their behavior.

Session II., Stream A: Corporate finance

# M&As and innovation: Evidence from acquiring private firms

### Jana Fidrmuc

Warwick Business School

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Siti Farida Birmingham Business School

This paper shows that acquisitions of private targets increase firms' new patents, exploratory and exploitative innovation, and innovation efficiency. The results are stronger for acquirers possessing expertise from corporate venture capital and facing more competition in product markets. The effects are insensitive to targets' existing patents and acquirers' short-termist pressure. We do not find any increase in innovation for public target acquisitions. The differences in innovation outcomes also explain away the well-known higher announcement return when acquiring private targets. Our results suggest that innovation plays a key role in the value creation of private target M&As.

# Owner type and investment of private firms

#### Jan Hanousek

 $Charles \ University, \ Prague$ 

Anastasiya Shamshur King's College, London Using detailed ownership and financial information from a large sample of private firms from 24 European countries over the period from 2001 to 2018, we examine the relationship between the type of the owner and firm investment decisions. We find that family-owned firms exhibit higher investment rates and substantially higher sensitivity to investment opportunities, profitability, cash flow and value-added growth compared to corporate and institutional owners. To demonstrate the robustness of our results we employ matching samples complemented by analysis of owner type transitions from family owners to corporate and institutional owners.

# Firm efficiency, public procurement, and corruption: The case of Slovakia

### Tomáš Bačo

Ministry of interior of the Slovak republic

#### Eduard Baumöhl

 $University \ of \ Economics \ in \ Bratislava$ 

#### Tomáš Výrost University of Economics in Bratislava

We employ a large dataset of complete firm-level accounting data for Slovak companies over the period of 2014-2021 comprising a total of 653.520 firm-year observations, complemented with the data from the Bureau of Public Procurement about firms involved in public procurement. We spot a light to three main variables: (1) the share of other services to total costs (which is often used to legalize bribes; SOS), (2) the share of wage costs (which is interesting due to the subcontracting issues and the overall corporate social responsibility; SWC), and (3) the technical efficiency (TE) estimated within a stochastic frontier analysis framework. Our results indicate that SOS tend to be higher for firms involved in public procurement (PP). SWC is always higher for firms which are not involved in PP and is negatively correlated with firms' technical efficiency. Breaking-down the average results to different NACE groups, firms involved in PP tend to be more efficient. Finally, we also show that it helps to improve TE if the firm is larger, from the Bratislava region, and has foreign ownership. In some cases, the more profitable firms are not the most efficient ones.

# Beneish model for detection of earnings manipulation: Evidence from Slovakia

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#### Tomáš Výrost University of Economics in Bratislava

To test a usefulness of the Beneish model we use a unique, not publicly available database from the Financial Administration of the Slovak Republic, in which we have the results of all financial on-site inspections conducted by this authority over the years of 2015-2019. This database is paired with firm-level accounting data obtained from the Register of financial statements and with official Business register to obtain additional corporate governance data. Our results indicate that (a) the performance of the Beneish model is very poor on Slovak data; (b) there are few significant financial variables both in term of statistical and economic significance, but their relevance is conditional on an industry group; (c) corporate governance indicators appears to be more relevant preventive factors of fraudulent behavior, especially foreign ownership, female CEO and corporate social responsibility.

#### Session II., Stream B: International economics

# Impact of EU Integration on Development of Border Cities

#### Martin Hulényi

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#### Nicolas Debarsy

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Borders impede economic activity in the areas in their proximity. Hence, their Lille Économie Management (L.E.M), elimination could lead provide the border regions with an economic boost. In this paper, we investigate the impact of integration into the EU on municipalities located in regions in the proximity of the borders affected by EU integration. Our aim is to use a broad dataset to cover and directly compare different the effect of different

# **Beyond Competitiveness: Is Productivity** Everything?

#### Nikolaos Antonakakis

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#### **Boris Fisera**

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Webster Vienna Private University and Institute of Economic Research SAS

We extend the discussion on the ongoing controversies over the concept of competitiveness on the macroeconomic level by empirically assessing whether productivity is a superior predictor of economic growth when compared to World Economic Forum's (WEF) Global Competitiveness Index (GCI). Our empirical findings seem to suggest four contributions to the ongoing discussions on refining the approaches to international country ranking. First, the ranking of countries based on normalized labor productivity yields the same results as those based on the WEF's GCI. Second, the correlation between all the scores of the 12 sub-pillars of the GCI, as well as the overall GCI score and productivity yield strikingly similar results. Third, using a panel dataset for 104 countries over the years 2007-2019, our results obtained from a panel VAR (PVAR) model indicate that productivity has a stronger prediction power for both real GDP growth, as well as for the inequality-adjusted GDP growth than the GCI. This is particularly the case for advanced economies. Finally, using the residuals of a regression of productivity on GCI, we explore the drivers of the differences between productivity and GCI. We find that higher values of rule of law, property rights, economic freedom and political stability explain why advanced economies are positioned higher in their level of productivity than in the GCI ranking.

# **Determinants of Rising Fragmentation in Global** Value Chains

#### Tomáš Oleš

The international trade has been reshaped and structured around global value University of Economics in Bratislava chains. This paper maps the change of global value chain network topology and the evolution of countries' participation in global value chain trade. Analyzing the detailed decomposition of global value chain trade linkages between 2000 - 2014, the paper test whether determinants of traditional trade also explain a various type of trade withing global value chains. Using dynamic panel data estimation techniques the findings show that factor endowment hypothesis do not shape country's engagement in complex value chain trade, however, to great extend explains why countries trade in much simpler trade in intermediate goods and services. When it comes to more complex factor content trade, the gravity model variables such as distance play only significant role in shaping the size and intensity of trade across national borders.

# Financial Impact of Trust and Institutional Quality Around the World

#### Svatopluk Kapounek

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#### **Evžen Kočenda** *Charles University, Prague*

Luděk Kouba

Mendel University in Brno

We investigate the financial impact of social trust, institutional quality, and regulations. As a testing ground we employ a unique, large, and hand-crafted dataset of more than 850 000 lending-based crowdfunding projects from 155 platforms across 55 countries during 2005–2018. We show that the impact of social trust is positive but economically less pronounced than that of institutional trust proxied by legal and property rights protection and regulation. Moreover, the financial impact of social trust is greater at the national level, while that of institutional quality dominates at the international level. Hence, as anonymity and internationalization of financial environment increase, so does the role of institutions.

#### Session II., Stream C: Energy economics

# Empirical evidence of the direct rebound effect for residential electricity use in selected European countries

#### Camille Massié

Catholic University of Lille

The electricity savings by improving the electricity efficiency of European households may not be as much as expected due to the existence of a rebound effect. Therefore, based on a Eurostat and World Bank annual panel data covering the period 1996-2018, this article develops dynamic panel approaches, a generalized method of moments and a first-difference specifications, to investigate the direct rebound effect of some selected European countries' residential electricity consumption both in the short- and long-run. Instrumental variable techniques are used to tackle the reverse causality of the electricity price in a demand model. Estimates of the direct rebound effect in residential electricity use are 18% in the short-run and 42% in the long-run. Our findings reject the hypothesis of a backfire effect in residential electricity demand and have important implications for policy makers, suggesting the need for smart policies taking into account households' behavior and their decision-making process for energy consumption.

# Does the War in Ukraine accelerate the adoption of hybrid/electric vehicles?

Sarah Drain West Virginia University

Mustahsin Aziz West Virginia University

Zach Porreca West Virginia University Following Russia's invasion of Ukraine on February 24, 2022, several economic sanctions were imposed on Russian oil causing a disruption to the global supply. With Russia being one of the top producers of oil, many countries were forced to redirect their pipelines seeking new sources for oil, which in turn, caused a global price shock. This shock to gas prices increases the cost of operating a gas-powered vehicle which may cause many consumers to reach their tolerance threshold. This would then force consumers to seek alternatives such as hybrid and electric vehicles. We investigate the connection between the Russo-Ukrainian Crisis and the accelerated adoption of hybrid and electric vehicles by consumers in the global market. Using actual and forecasted sales data of electric and hybrid vehicles, this paper conducts a difference-in-difference analysis to identify the adoption rate of these vehicles after the invasion of Ukraine.

# What's the cost of saving the planet for banks? Indirect impact of climate risks on the banking sector in Slovakia

Jozef Kalman

National Bank of Slovakia

Ján Klacso National Bank of Slovakia

Roman Vasil National Bank of Slovakia

Juraj Zeman National Bank of Slovakia The ongoing trend in global warming needs prompt and timely policy reaction. This reaction and the consequent transformation to carbon-neutral economy results in worldwide economic and financial losses to business, households, and governments. Beside the impact on the real economy, central banks and supervisors follow the impact on the financial system as well. This paper studies the potential impact of climate change risks on banks in Slovakia over the horizon of four-years. We focus mainly on transition risks, i.e. risks posed by the transition to carbon-neutral economy. We propose an analytical framework to quantify impact of transformation policies on bank's credit risk exposures based on scenarios prepared by Network for Greening the Financial System (NGFS). We document negative impact along credit risk channel in the form of increased non-performing loans losses from both households and non-financial corporations loan portfolio. The main drivers of credit risk are the shock to GDP in case of corporates and the increase in unemployment rate in case of households. Although losses are significantly lower compared to adverse stress testing scenarios, they are sensitive to energy price increase.

# Environmental-Social-Governance Preferences and Investments in Crypto-Assets

#### Pavel Ciaian

Joint Research Centre, European Commission

#### Andrej Cupak

National Bank of Slovakia; University of Economics in Bratislava

### Pirmin Fessler

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#### D'Artis Kancs

Joint Research Centre, European Commission Individuals invest in Environmental-Social-Governance (ESG)-assets not only because of (higher) expected returns but also driven by ethical and social considerations. Less is known about ESG-conscious investor subjective beliefs about cryptoassets and how do these compare to traditional assets. Controversies surrounding the ESG footprint of certain crypto-asset classes – mainly on grounds of their energyintensive crypto mining – offer a potentially informative object of inquiry. Leveraging a unique representative household finance survey for the Austrian population, we examine whether investors' ESG preferences can explain cross-sectional differences in individual portfolio exposure to crypto-assets. We find a strong association between investors' ESG preferences and the crypto-investment exposure. The ESG-conscious investor attention is higher for crypto-assets compared to traditional asset classes such as bonds and shares.

#### Session II., Stream D: Behavioral and experimental economics II.

# Towards an Understanding of Allocation Choice in Charitable Giving: A Natural Field Experiment

Theodor Kouro CERGE-EI

This study examines a new fundraising strategy: a choice to allocate contributions to different projects that benefit the same type of recipient. Further, it delves into the mechanisms underlying the effect of the allocation choice. We investigate whether donors increase giving because they like choice or because they can donate more to the projects they like more. Lastly, we explore whether giving increases when donors have a chance to make more informed allocation decisions. We implemented a natural field experiment of donations to children with Down Syndrome in Albania. Control group donors were aware of the three projects but could not allocate their donations to any of them. Donors in the choice group were asked whether they would like to allocate their donation to each of the three projects. Donors in the forced allocation group were forced to allocate their gifts, and those in the link group had a chance to make more informed allocation decisions. We find that offering donors an allocation choice increases giving by 80.9% relative to the control group, and the vast majority took the allocation option. Moreover, forcing donors to allocate doubles giving. Hence, the effect of the allocation choice is driven by the fact that donors can state their preferences for the projects they want to support more, rather than the fact that donors like to have a choice. Lastly, allocating gifts and information provision about the aid-effectiveness do not work hand in hand.

## Valuing Hope: A Model of Aspirations

#### Vladimír Novák

Bocconi University

Eliana La Ferrara Bocconi University

We develop a theory of how individuals select their aspirations, in which an agent learns about her ability to achieve the chosen aspiration while deriving utility from both the tangible payoff and the hope that the aspiration evokes. The presence of hope introduces a trade-off between one's willingness to experiment with more ambitious aspirations (leading to potentially higher payoffs) and the preference for less ambitious aspirations that are not revealed as unattainable too soon and allow the agent to keep hope for longer. The model implies the formation of consideration sets. We derive conditions under which selecting more ambitious aspirations leads to their attainment, as opposed to causing frustration. The model also provides a framework for studying anti-poverty interventions that influence endowments vs. beliefs.

# Taste-based Discrimination against Sexual **Minorities: Evidence from Information Provision** Experiment

Gayane Baghumyan CERGE-EI

Understanding the underlying drivers of discriminatory behavior is important for finding the best strategy to combat discrimination. In this paper, we study how people's beliefs about homosexuality being an innate trait affect their attitudes towards sexual minority groups. To causally identify the impact of information about biological causes of homosexuality on sexual-orientation discrimination, we conduct an online experiment, where we exogenously manipulate subjects' beliefs about the biological origins of homosexuality, and then measure their social preferences preferences towards sexual minorities. We use money allocation tasks and LGB policy-related questions to capture discrimination. First, we document that sexual-orientation discrimination is prevalent towards both gays and lesbians. Next, we find that exposure to research evidence about biological causes of sexual orientation negatively affects discriminatory behavior. Subjects in the treatment group allocate less money to homosexuals, relative to subjects in the baseline group. Possible explanations might be that information about biological causes of homosexuality: (i) induces beliefs that homosexuals are dissimilar from them, even biologically, and thus increases social distance between participants and sexual minorities leading to more discrimination; (ii) primes participants with homosexuality-related thoughts and awakens negative sentiments towards them (in countries with low acceptance of homosexuality), which, in turn, fosters discrimination.

# Do I want to study? Experimenting with students' motivation

#### Zuzana Brokešová

#### Erika Pastoráková

University of Economics in Bratislava

#### Jana Péliová

University of Economics in Bratislava

Declining tendency in students' achievements is clearly prevailing in the Slovak University of Economics in Bratislava Republic. It was firstly observed in primary and secondary education when Slovak students underperformed in PISA testing compared to their peers from Visegrad countries and other OECD countries (OECD, 2016). There has also been criticism of the performance of the current university students and graduates who quickly lose interest in their jobs and their fluctuation is high. We performed experiment at the University of Economics in Bratislava on the sample of 132 undergraduate students all having attended compulsory module Finance which was scheduled regularly on a weekly basis during February - April 2017. We used 10 low-stake tests comprising of 10 open questions from the current seminar topic as homework and had to be returned on the next seminar for assessment and feedback. We studied motivation between subjects by providing 4 different treatments: (i) external motivation with egoistic aspect, (ii) external motivation with altruistic aspect, (iii) internal motivation, and (iv) baseline treatment with no specific motivation applied. The results of between-subject analysis reveal the treatment effect on the final grading of the students. In general, assignment to any treatment increases the final grading compare to the baseline. Participation in the treatments also substantially decrease the retake rate of the final exam. Our results also support the intuition that the lowest participation in tests will be observed in the internal motivation treatment followed by the external motivation with altruistic aspect and external motivation with egoistic aspect.

#### Session III., Stream A: Microeconomics

# Individual-Specific Reliability of Self-Assessed Measures of Economic Preferences and Personality Traits

#### Tomáš Jagelka University of Bonn

Thomas Dohmen University of Bonn

Measures based on self-assessments are increasingly important in empirical economic research. They are notoriously plagued by measurement error which induces attenuation bias. However, researchers commonly ignore the fact that this measurement error is individual-specific due to differences in attention and self-knowledge, which may further jeopardize the reliability of the self-assessments. Indeed, psychologists often rely on general test-retest correlations which do not reflect heterogeneity in reliability across respondents. We design a two-wave survey study with 651 respondents from four major English speaking countries, which allows us to not only provide test-retest correlations for the most commonly used self-assessments of personality traits (the Big Five) and economic preferences, but also enables us to document heterogeneity in the respondents' reliability of answers. Crucially, we are able to measure both revealed reliability based on the coherency of answers across surveys and self-reported reliability for which we propose a simple survey question. Based on our findings that a single question on reliability allows us to separate individuals who give highly reliable answers from those who do not, we advise researchers to include this simple measure in surveys as a cost effective way to account for individual-specific measurement error.

# Gentrification, Gun Violence, and Drug Markets

### Zachary Porreca

West Virginia University

I demonstrate the causal linkage between gentrification and gun violence. As the underlying mechanism, I focus on gentrification's displacement effect on local drug markets. Using two-way fixed effects differences-in-differences estimators, I show the gentrification of one block increases violence across the surrounding neighborhood. I find that some 2,400 (8%) of Philadelphia's shootings between the years 2011 and 2020 can be attributed to spillover effects from the gentrification of drug blocks. This effect is nearly ten times stronger than that observed on blocks without high levels of drug crime. This study also contributes a new empirical measurement of gentrification drawn primarily from property sales, along with building, zoning, and alteration permit issuance and utilizes a novel nearest-neighbor network approach to identify spatial spillover effects.

# Resolution of candidate nomination problem by integer programming

#### Katarína Cechlárová

Institute of Mathematics, Faculty of Science, P.J. Šafárik University, Košice,

#### Julien Lesca

Huawei Technologies, Paris, France

#### Diana Plačková

Institute of Mathematics, Faculty of Science, P.J. Šafárik University, Košice, We consider elections where the set of candidates is split into parties and each party can nominate just one candidate. We study the computational complexity of the Possible President problem, i.e. the decision of whether there exists a set of nominees such that the candidate from the given party will win the final election. We consider several different voting systems and show that for all of them the Possible President problem is NP-complete, even if the size of each party is at most two. We formulate integer programs to solve the Possible President problem and test them on real and artificial data.

# Examine consumer preferences in postal services in Slovakia using discrete choice modeling

#### Ivo Dolezal

Comenius University, Faculty of Management

#### Lukrecia Kovac Gerulova

Economics University in Bratislava, Faculty of National Economy

#### Miroslava Skypalova

Economics University in Bratislava, Faculty of National Economy

### Urban Kovac

Comenius University, Faculty of Management

European Commission's Postal Directive recommends EU member states to better understand to the user needs and preferences for postal service. Various EU member states have employed various techniques to measure consumer preferences in postal markets that link senders and recipients. This is a challenging task that needs careful consideration of technical, economic and social environment evolution of postal consumer needs. The aim of this paper is to use discrete choice modeling methodology for measuring consumer preferences for postal services in Slovakia. The analysis examines how these consumer preferences vary across 260 residential consumers and 90 business customers, specifically focusing on differences between vulnerable (70) and non-vulnerable (190) consumers. The valuations of letter and parcel services are measured relative to the price of a stamp, and the total WTP for these services indicates that consumers value the speed of delivery and are willing to pay the higher price of a stamp when deliveries are made earlier about one day. Morning time of delivery was not important for residential and business consumers, while they value later deliveries higher in general. Businesses and residential consumers valued higher to have postal services delivery to their work or home place. We observe that both business and residential consumers were satisfied with the current state of the postal offices network coverage. They were not highly valued the opportunity to increase or decrease a number of delivery days, and they preferred status quo in this attribute.

#### Session III., Stream B: Financial markets

# Can sustainability differ between stocks? Empirical classification shows no effect

Lucie Staněk Gyönyör Masaryk University

#### Matúš Horváth Masaryk University

Daniel Stašek Masaryk University

### Martin Stachoň

Masaryk University

Sustainability is considered a critical investment parameter despite its ambiguous effect on asset behaviour. We present a novel approach to address whether stocks similar in ESG characteristics may create a specific group similar in financial behaviour. We employed ESG ratings of 6 major data providers and the artificial structural ESG combination to check the individual strength and the effect of shared – objective – information in the aggregated (ESG) and dimensional (E-S-G) perspective. Presented empirical classification of SP 1200 stocks regarding their ESG and several risk-returnliquidity variables shows no persuasive effect for seven consecutive years, including the Covid-19 pandemic. We based the robustness check on different time-setting and explored ESG as a leading, concurrent and lagged indicator in relation to financial data.

# Stock market development as a leading indicator of future economic growth in the BRICS countries

#### Klára Zálešáková

Mendel University in Brno

This paper deals with the verification of the assumption of forecasting ability of stock indices in the BRICS countries. The literature review focuses on the definition of the financial and stock markets, measuring the economic performance and the interdependence of stock markets and economic growth. The analytical part is based on time series of GDP and stock indices of the BRICS countries, which are processed using correlation analysis, VAR models and Granger causality test, which is used to determine the existence and possible direction and strength of the causal relationship between the variables. The results show that the role of stock indices as a leading economic indicator is overestimated. However, GDP and stock indices interact, the strength and direction of causal relationships is affected by number of factors.

# Earnings announcement premium before and during the COVID-19 pandemic

#### Barbora Klemová

Pavol Jozef Šafárik University, Faculty of Science, Košice

### Peter Molnár

University of Stavanger

Early research documented existence of earnings announcement premium, i.e. the observation that on average suck returns are higher during periods when companies announce their earnings. However, recent research found that this premium has disappeared. We investigate impact of COVID-19 pandemic on this premium. Our data sample consist of companies traded on the US stock exchanges between January 2009 and December 2020. We find that the premium is indeed insignificant before the pandemic, but positive and significant during the pandemic. This can be viewed as an increased compensation for risk associated with earnings announcements during this risky time.

# Frequency volatility connectedness and portfolio hedging of the US energy commodities

Evzen Kocenda Charles University

**ЪТ' I I ЪТ** 

Michala Moravcova University of Ss. Cyril and Methodius

We analyze volatility connectedness and portfolio hedging among the US energy commodities over a long span from 1997 to early 2022. We employ the volatility spillover index, its version capturing a time-frequency dynamics of the volatility connectedness, and derive optimal portfolio weights and hedge ratios to optimize the risk-return relationship among energy commodities. We show that the total connectedness has a rising trend during the whole examined period suggesting that financialization of energy commodity market deepen its volatility connectedness. We find that the war in Ukraine is characterized by the highest systemic risk, followed by the pandemic Covid-19. The results of directional volatility spillovers reveal that heating oil is the dominant asset in terms of volatility transmission and also as volatility receiver. Contrary, natural gas volatility is strongly affected only by its own historical volatility. In terms of frequency decomposition, we show that during the GFC and post-GFC period, the long-term component of connectedness dominates, whereas the short-term component attacks the lowest values during all examined sub-periods. We show that the energy market is characterized by the longer persistence of volatility and higher transmitting uncertainty. Finally, adding natural gas into energy portfolio brings diversification benefits. Specifically, portfolios including natural gas are characterized by the lowest portfolio weights and hedging costs. Hedging costs increase during turbulent periods of the GFC and Covid-19 pandemic.

Session III., Stream C: Financial stability

# Borrower-Based Macroprudential Measures and Credit Growth: How Biased is the Existing Literature?

Martin Hodula

Czech National Bank

Simona Malovaná Czech National Bank

Zuzana Gric Czech National Bank

Josef Bajzík Czech National Bank The ever-so-increasing use of borrower-based measures such as loan-to-value, debtto-income, and debt service-to-income limits has created a demand to better understand the transmission of the policy and its effectiveness. In this paper, we collect more than 700 estimates from 34 studies on the effect of borrower-based measures on bank loan provision. A birds-eye view of our dataset points to a significant fragmentation of the literature in terms of the estimated coefficients. On average, the introduction or change of borrower-based measures reduces annual credit growth by 1.7 pp. Using battery of empirical tests, we verify the presence of a strong publication bias, especially against positive and not statistically significant estimates. The bias-corrected coefficient is about half the size of the uncorrected mean of the collected estimates, but remains safely negative. Further, we explore the context in which researchers obtain such estimates and we find that differences in the literature are best explained by model specification, estimation method, and the underlying data characteristics.

# How fast and strong is interest rate pass-through for Czech loans: Time-varying approach

### Eva Hromádková

Czech National Bank

Ivana Kubicová Czech National Bank

Branislav Saxa Czech National Bank We examine interest rate pass-through in the Czech Republic over the period of 2004 - 2022. We investigate the speed and completeness of the transmission of changes in reference market interest rates to lending rates on loans to nonfinancial companies and on mortgage loans. Using rolling window approach enables us to examine changes of pass-through over time. In the case of housing loans, the transmission of the selected reference rate (five-year interest rate swap) to client rates is strong in the long term, although it is not complete currently. The reaction of the client rate to a change in the interest rate swap takes approximately 4 months. The risk premium, which we assume

is linked to the unemployment rate for housing loans, contributes significantly to explaining changes in the client's interest rate. An increase in unemployment by 1 p.p. implies an increase in the risk premium for the client mortgage rate by approximately 0.2 p.p. The results of the estimates for loans to non-financial companies confirm the strong and immediate reaction of client interest rates to the change in 3M PRIBOR, especially until 2015. Although the immediate pass-through weakened in the following years, the change in 3M PRIBOR is almost completely passed on with a minimal delay. A reduction in the output gap by 1 p.p. implies an increase in the risk premium for the client interest rate on corporate loans by approx. 0.1 p.p.

## **Currency Network Risk**

#### Mykola Babiak

Lancaster University Management School

#### Jozef Barunik

Academy of Sciences of the Czech Republic This paper identifies new currency risk stemming from a network of idiosyncratic option-based currency volatilities and shows how such network risk is priced in the cross-section of currency returns. A portfolio that buys net-receivers and sells nettransmitters of short-term linkages between currency volatilities generates a significant Sharpe ratio. The network strategy formed on causal connections is uncorrelated with popular benchmarks and generates a significant alpha, while network returns formed on aggregate connections, which are driven by a strong correlation component, are partially subsumed by standard factors. Long-term linkages are priced less, indicating a downward-sloping term structure of network risk.

# ECB monetary policy transmission – what changed after rates turned negative?

### Zuzana Fungacova

Bank of Finland

#### Eeva Kerola Bank of Finland

Olli-Matti Laine

Bank of Finland

We study the effects of both conventional and unconventional monetary policy on bank lending rates in euro area where policy interest rates turned negative in 2014. We are specifically interested in the potential change in interest rate pass-through with negative rates. Our analysis utilizes a novel bank-level dataset at monthly frequency covering 137 individual banks from 13 euro area countries during the period from January 2010 to December 2020. This detailed data enables us to study the effects on lending rates to different types of loans with different maturities. We also employ the bank level data from the ECB's Bank Lending Survey (BLS) to control for credit demand. We find that changes in conventional monetary policy are being passed through to lending rates, but the effect is reversed when policy rate turns negative. This reversed effect particularly concerns the banks that kept their own deposit rates non-negative. When looking at quantitative easing and longer-term financing operations separately, we find that as (T)LTROs did contribute to decreasing lending rates, quantitative easing had a reversed effect increasing lending rates especially for smaller loans for non-financial corporations and housing. Our preliminary findings indicate that consumption loans tend to behave somewhat differently in comparison to other types of loans.

Session III., Stream D: Economic growth II.

# Benedic, Domine, nos et haec tua dona: Northern Crusades, State-Formation and Early Economic Development

Flavio Malnati Cerge-ei In this paper, I evaluate how the Crusades exported state-formation as a driver for Early Economic Development for the regions at the frontier of Western Europe. According to the present literature, state-formation is a driver for economic development. However, the literature misses investigating how state-formation influenced early economic development in the Middle-Ages through the Crusades mobilisation. Moreover, it disregards the persistence of state-formation over economic development once the Crusades are over and the state falls. In the Northern Crusades, the state-formation transmission is evident, as the Crusades represented an expansion of Western Europe outside its borders. Thus, I analyze the expansion of the Teutonic Order (T.O.) that exported state-formation outside of the traditional borders of Western Europe. The analysis of the T.O. state studies the economic effect of state-formation from its rise (in 1200 AD) and after its fall (in 1500 AD). I employ a Regression Discontinuity Design to compare over time the T.O. state development to the neighboring regions. I find a hump-shaped trend in economic development following the rise and fall of the T.O. state. My findings suggest that state-formation spurs development but in a non-persistence way once T.O. state fails.

# Revisiting financial development and economic growth nexus in Turkey

#### Nur Bilge

Université de Lille, Lille Économie Management (LEM)

#### Jan Fidrmuc

Université de Lille, Lille Économie Management (LEM)

#### Bülent Güloğlu

Istanbul Technical University, Department of Economics This study investigates the effect of financial development on economic growth taking into account the heterogeneity according to the conditional growth distribution for Turkey, using quarterly data over the period 2002Q1-2020Q3. In order to represent financial sector completely, both banking system and stock market are included in the model. The analysis, based on the Quantile Regression methodology, suggests that additive semiparametric methodology is more appropriate than other models in order to capture the relationship between financial development and economic growth.

#### Jan Fidrmuc

Université de Lille

## Normal Countries?

In 1989-91, the Berlin Wall fell, the Iron Curtain folded, Germany reunited, and the Soviet Union fell apart. This marked the beginning of the so-called post-communist transition in the formerly Communist countries of Central and Eastern Europe. Some 30 years later, can we consider transition over? On the one hand, ten post-communist countries have joined the European Union. However, the assessment is bleaker when looking at former Soviet Union where authoritarian regimes still dominate, several countries can be best described as failed states, while others see their economies at best muddle through. This paper is not the first one to raise the question about when we can mark the end of transition. Shleifer & Treisman (2005) argued in their essay that Russia was no longer an evil empire but, rather, already a normal country. In part, the question therefore boils down to finding a definition of a post-transition equilibrium, or, using the terminology of Shleifer & Treisman, defining normalcy. In this paper, I argue that rather than use a single benchmark for all, the performance of the post-communist countries should be compared with other similar countries. In other words, the definition of normalcy cannot be uniform. Rather, post-communist countries will have completed the transition once they no longer stand out when set against other countries at similar level of socio-economic development.

# Does E-government leave people behind? Economic, social, and political bias in coproduction of service evaluation using citizen complaints about public services

Germà Bel University of Barcelona

### Marianna Sebő

Universitat de Barcelona

Today's technological advances have created new channels for collaboration of local governments with the public. Citizens can perform the role of both partner and customer in public service delivery. This paper examines citizen coproduction based on citizen sourcing in Barcelona. In this setting, citizens monitor and evaluate of public services using a feedback system to register their complaints. Nevertheless, their propensity to make complaints may be biased due to socioeconomic factors, political activism, or partisan alignment. This article analyzes bias in citizen complaints about eight urban public services in Barcelona using a panel data approach. We use monthly observations from the city's feedback system from 2014 to 2019, at a district level, conducting fixed-effect estimations. We find that, while political participation is related to higher propensity to complain, economic status, educational attainment, and partisan alignment do not have a significant association with complaints.

# Wealth Survey Calibration: Imposing Consistency with Income Tax Data

#### Daniel Kolar

Charles University in Prague

Wealth surveys tend to underestimate wealth concentration at the top due to the "missing rich" problem. We propose a new way of improving the credibility of wealth surveys: We make them consistent with tabulated income tax data. This is possible with the Household Finance and Consumption Survey (HFCS), which takes place in most European countries every three years and collects data on both income and wealth. Consistency is achieved by calibrating survey weights using the income part of HFCS. We apply the calibration method of Blanchet, Flores and Morgan (2022), but propose a new way to determine the merging point where the calibration starts. Calibrated weights are then used with HFCS wealth values. We test the method on Austrian data and find that calibration increases the top 1 % wealth share from 26 %to 37 % in 2014 and from 23 % to 27 % in 2017. The effect is small and negative in the 2011 HFCS wave, even though the net worth of the top 1 % increases. We also highlight a strong downward bias in the Austrian HFCS income distribution, which begins even before the 80th percentile. Following the calibration, we test other top tail adjustments: replacing the survey top tail with a Pareto distribution and combining the data with a magazine rich list.

# The Happiness That Money Can Buy: Life Satisfaction, Consumption and Inequality in Slovakia

### Biswajit Banerjee

Národná banka Slovenska

#### Peter Tóth Národná banka Slovenska

A vast body of literature studies how one's own income and the incomes of others affect subjective wellbeing. To extend this literature, we capitalize on a unique household-level dataset from Slovakia with information on consumption, income, wealth and life satisfaction. First, we estimate a structural relationship between these variables. Net wealth and predicted income can be interpreted as components of permanent income, and together with current income we find them to be significant determinants of current consumption. A similar empirical relationship holds for life satisfaction, where the positive effect of current consumption is complemented by those of predicted consumption and net wealth. Second, as regards the effect of comparison groups on life satisfaction, we get mixed results. Higher regional median income or inequality increase life satisfaction. This is a finding consistent with the so-called information effect and it appears in studies of early-transition countries. Whereas if we approximate comparisons to reference groups via consumption or wealth, higher regional median values or inequality diminish life satisfaction. The latter, so-called envy effect is standardly found for developed economies. Such contrasting estimates for different approaches to measuring relative income suggest a potential measurement problem. Namely, the content of consumption baskets of one's peers are more visible, and their wealth is displayed more publicly than movements on their bank accounts. In other words, income can be compared only less directly. Therefore, the former empirical approach may readily establish the envy effect.

# Digital Inequality and Usage Gap in the V4 region

### Anna Vallusova

Matej Bel University

#### Kuráková Ivana Matej Bel University

Žaneta Lacová Matej Bel University

The V4 countries have achieved different levels of digital transformation due to distinctions in their technical infrastructure and human capital characteristics. The success of digital transformation cannot be measured solely by the achieved level of digitalization; the distribution of favorable outcomes of internet use within a country should also be considered. The level of digital skills and usage patterns differ among social groups, therefore capability to translate internet access and use to tangible (offline) benefits vary. The aim of our paper is twofold. Firstly, we quantify the extent of the digital inequality in terms of usage gap in the V4 countries. We indicate the dynamics of inequality by comparing the development of such inequality between the years 2015 and 2019. Secondly, we identify socioeconomic and sociodemographic factors, which are connected to differences in internet usage patterns and therefore affect the capability of an individual to benefit from internet. In common with other studies carried out in the Western world, we show that internet access and possession of formal digital skills are not the most important determinant of probability of being a digital beneficiary; individual characteristics, especially education and age, predict the probability of being a digital beneficiary to a higher degree of accuracy. As to the extent of digital inequality in the individual countries, we come to the conclusion that although the V4 countries are relatively homogeneous concerning socioeconomic inequalities, the level of digital inequality among them differs - Hungary being somewhat unequal as compared to the most equal Czechia.

# Mothers' Job Mobility after Childbirth and Earnings

### Lukas Laffers

Matej Bel University

#### Bernhard Schmidpeter

Johannes Kepler University Linz

We show that mothers exhibit high job mobility after childbirth, with impor- tant implications for future earnings. Using a bounding approach relying on weak monotonicity assumptions and administrative data for Austria, we find that changing jobs after childbirth increases re-employment earnings, but only for mothers at the upper part of the earnings distribution. These earnings effects of initial job mobility are persistent. They are caused by mothers moving to faster growing firms offering better career opportunities to women, even if this requires longer commut- ing. Job mobility also leads to a narrowing of the within household earnings gap. High mobility costs are an important factor which precludes more mothers to move to better employment.

#### Session IV., Stream B: Education and labor markets

# Regional Unemployment in V4 – Administrative Data vs. Labour Force Survey

Michal Páleník

 $FM \ UK, \ IZ$ 

Data on regional unemployment can be obtained from two main sources – labour force sample survey and administrative data from national labour offices. The former has the advantage of cross border harmonization and stability in case of legislative changes, the latter is more up to date and has higher regional granularity. In this paper compare the LAU1 dataset by Michal Páleník (doi: 10.5281/zenodo.6595273) with LFS data on unemployment. In the second part of this paper, we analyze regional development of unemployment in V4 on the LAU1 level (county, okres, powiat, járás). Moran-I statistics show several cross border clusters, which would be unidentified by country wide analysis.

# The outflow of high-ability students from regular schools and its long-term impact on those left behind

#### Miroslava Federičová CERGE-EI

Early tracking school systems, which stream student by ability, are considered a trigger of widening inequality in education. However, more homogenous class composition resulting from ability tracking seem to improve efficiency of teaching and learning. Literature on peer effects shows contradictory findings about these two counteracting effects. This paper contributes to the discussion of the efficacy of ability tracking by examining the effects of the outflow of high-ability students after primary education on the long-term educational outcomes and behaviour of their peers who remain in regular classes. Exploiting a 2009 school reform in Slovakia which postponed tracking by one year, we show that the one additional year with high-achieving students in class results in a positive long-run effect on non-tracked student's math, science and reading scores and late arrivals at school.

# Exploring parental school travel choices.

### Veronika Gezik

Faculty of Management

Sandra Stasselova MIB

Juraj Hurny MIB

Dorota Sarikova MIB

Zuzana Cupkova <sup>MIB</sup>

Maria Dida <sub>MIB</sub> Understanding barriers to active school travel (AST) is an important first step in developing behavioural interventions to increase active travel. The purpose of this study was to explore parents' experiences of school travel and their choices regarding travel mode with a focus on identifying barriers and facilitators to AST. The Street for Children project started with pilot activities at the selected Tbiliská primary school in Bratislava, Rača, which is attended by 830 children. Three-quarters of parents participated in the questionnaire on the traffic and safety situation in front of the school as part of a participatory process. Later 16 parents took part in semi-structured interviews regarding school travel, informed by Theoretical domain framework. Framework Analysis was used to identify key themes in the data and to develop a comprehensive picture of parents' experience of school travel at both individual and structural levels.

# Public policies as factors of fertility in Visegrad countries: neither the same story nor the same results.

#### Monika Michalcová

Institute of Public Policy Comenius University in Bratislava

This paper studies the six public policies as the factors of fertility in four countries of Visegrad group (V4). All of them are tackling with a fertility lower than replacement rate. Their shared post-socialist legacy and geopolitical conditions may suggest the similar dynamics of fertility rate and homogenous family policy. The author uses the backward stepwise regression to estimate the most relevant policy factors for the autoregressive distribute lag analysis (ARDL), which is used to identify the significance and direction of their relationship with fertility rate. The results suggest the discrepancies between V4 countries. Based on the findings, the main policy advice refers to more systematic data collection and transparency, mainly in the field of health and labour policy and especially in Poland. Furthermore, policy makers should focus on housing policy, e.g. by regulation of rent prices, which negatively relate to fertility in Hungary and Poland. In the whole region, the creation of a more family-friendly environment at the universities could boost the fertility, too. Finally, the novelty – the analysis of pension policy in relation to fertility – brought interesting findings about significance of this policy in Czechia, Hungary and Slovakia. The amount of public finance in pension system negatively related to fertility whereas the life expectancy positively. However, more research (also of qualitative character) is needed to grasp the unclear disparities within the V4 region.

# Selected cases of secondary school availability to the poorest families: The case of Slovakia

Michal Páleník FM UK, IZ In Slovakia, there exists a direct financial motivation for poor families to enlist their children into secondary school. These immediate financial incentive includes tax law family policy and state social scholarships (stipendium) at secondary schools. The lack of changes in legislation in connection with increasing wages and employment lead to lower number of supported children. In this article, we will examine several types of families (e.g. minimum wage earner) and changes to the scholarship of their children. We will compare this to macroeconomic statistics on social scholarship and show that higher rate of wage growth in comparison to inflation growth lead to decreasing number of families that fall under this legislation. We will use www.iz.sk/kalkulacka for calculations of scholarships.

#### Session IV., Stream C: Macro-financial analysis (APVV-20-0499 and APVV-18-0335)

# Exchange Rates and the Speed of Economic Recovery: The Role of Financial Development

Boris Fišera

 $Charles \ University$ 

We study the influence of the exchange rate on the speed of economic recovery in a sample of 67 developed and developing economies over the years 1989-2019. First, using a cross-sectional sample of 341 economic recoveries, we study the effect of nominal depreciation and real undervaluation on the length of economic recovery. Our findings indicate that both nominal depreciation and real undervaluation increase the speed of economic recovery. However, this finding only holds for smaller depreciations/undervaluations. Second, we use an interacted panel VAR (IPVAR) model to investigate the effect of real undervaluation on the speed of economic recovery after external shock. While we once again find evidence that undervalued domestic currency increases the speed of economic recovery, its positive effect seems limited in size. Furthermore, we also explore the role of financial development in influencing the effectiveness of undervalued domestic currency in stimulating the economic recovery. We find that the higher level of financial development seems to limit the negative effect of an overvalued currency on the speed of economic recovery, but not to influence the effect of an undervalued currency on economic recovery.

# Does Macroprudential Policy Leak? Evidence from Non-Bank Credit Intermediation in EU Countries

### Martin Hodula

Czech National Bank

Ngoc Anh Ngo Technical University of Ostrava We examine whether macroprudential policy actions affect shadow bank lending. We use a large dataset covering 23 European Union countries and synthesize a narrow measure of shadow banking focused on capturing credit intermediation by non-banks. To address the endogeneity bias inherent to modelling of the effects of macroprudential policy on the financial sector, we consider a novel index of the macroprudential authority's strength in pursuing its goals and use it to instrument for a macroprudential policy variable in an IV estimation framework. We robustly demonstrate that following a macroprudential policy tightening, shadow bank lending increases. We harness the cross-sectional dimension of our data to show that the effect applies especially to low-capitalized banking sectors, where macroprudential policy is expected to be more binding, leading to credit reallocation from banks to non-banks.

# Price Determinants of Non-Fungible Tokens in the Digital Art Market

Jarko Fidrmuc

EU SAV, Bratislava; ZU Friedrichshafen

Florian Horky ZU Friedrichshafen While the traditional art market stagnates, the digital art market is booming partially due to its connection with non-fungible tokens, which allow any unique goods to be mapped in a digital environment. Using unique individual data from the online art NFTs marketplace SuperRare, we combine econometric tools with recent machine learning approaches. This approach allows us to define explanatory variables out of the NFTs descriptions for our Hedonic pricing approach. Using these variables, we are able to show that our Hedonic pricing models exhibit relevant informational value for NFTs prices. Moreover, we show that NFTs cannot be viewed as a simple derivative of cryptocurrencies.

# Abnormal FDI as a driver of sudden stop episodes

#### Maria Siranova

Slovak Academy of Sciences

#### Menbere Workie Tiruneh

Slovak Academy of Sciences

Brian Konig Slovak Academy of Sciences In this paper we study role of abnormal FDI as a potential driver of sudden stop episodes during 2009-2019 period in sample of developed and developing countries. Volume of abnormal FDI is derived from unexplained part of country fixed effects in bilateral gravity regression. We construct three measures 'FDI abnormality' that i) approximate role of an economy as financial center or tax haven, ii) calculate contribution of 'FDI abnormality' to total FDI position, iii) adjust value of FDI stock given their exposure towards territories considered as tax havens or financial centers. Using these measures we estimate panel probit model and obtain three important results. We find that economies with comparably higher share of inward 'abnormal FDI' were associated with lower incidence of sudden stop episodes; that capital flows linked to tax haven or financial centers territories may increase likelihood of sudden stop in certain instances; and retrenchment episodes driven by behaviour of domestic investors are not sensitive to any measure of 'FDI abnormality'.

#### Session IV., Stream D: Labor markets II.

# Choose the right workplace experience: A dynamic evaluation of three activation programmes for young job seekers in Slovakia

#### Miroslav Štefánik

Institute of Economic Research, Slovak Academy of Sciences

#### Lukáš Lafférs

Department of Mathematics, Faculty of Natural Sciences, Matej Bel University

This paper introduces three alternative active labour market policy programmes available to young registered job seekers in Slovakia during 2011. Using administrative data, we first explore the moment of selection into each of the programmes and second estimate the treatment effects on job seekers' post-participation presence in the registry of the unemployed. We adopt a dynamic evaluation framework enabling a comparison between programmes that mainly differs in the type of workplace participants sent to collect work experience. Our results show substantial differences in the impacts of the measures on employment up to 30 months after participation, confirming the poor performance of the public works type of workplace insertion. Furthermore, we observe a decline in the impact of all three programmes if participation occurs later in the unemployment period. The moment at which young jobseekers enter one of the programmes is determined by individual characteristics, such as their skill level and the accessibility of the programmes. The more exclusive programme, which selects more skilled job seekers, further increases participants' employment chances, while an alternative programme results in a significant decrease in post-participation employment chances.

# Migrants' Remittances in Slovakia

# Raman Herasimau

The migration process becomes more and more intensive in the European region. Regional wars and crisis are speeding up the migration volumes even more. This process has great impact on different parts of the state system: healthcare, labor market, education, pension system, family support system, fiscal system etc. In 2022 CEE countries felt immigration processes more than other EU countries. A drastic number of people ran to Slovakia from the war in Ukraine. Together with people financial resources move too. This paper is dedicated to analysis of relationships between remittances and macroeconomic estimates. This study demonstrates the weak relationship between remittance outflows, GDP and average wage, while remittance inflows have strong relationship with education expenditures of the home country.

# Measuring labour market activity when the times are tough

Olga Zajkowska University of Warsaw

Katarzyna Saczuk Warsaw School of Economics Labour Force Survey (LFS) is the major tool of labour market diagnosis in Poland. In 2020-2021 several factors affected observed outcomes. When COVID-19 epidemics occured, Statistics Poland switched from face to face interviews (CAPI) to telephone inverviews (CATI). Additionally, in 2021 major changes in LFS were introduced, including changes in the main definitions and the survey questionnaire. We estimate the impact of these changes on the measured labour market outcomes. We decompose historically high labour market activity and employment into the true effect, the survey effect, the proxy respondents effect and the data collection method effect. We also discuss the issues of attrition and sample selection in the elementary subsamples.

# Gender Differences in Starting a Business: Results From an Experimental Evaluation of Business Plans

#### Martin Guzi Masaryk University

Magdalena Adamus Slovak Academy of Sciences This paper investigates gender stereotypes and different treatment of women and men in the business start-up phase. A sample of 498 entrepreneurs participated in the study and evaluated three business plans in terms of the applicants' competence, likeability, entrepreneurial efficacy, behavioural control, success chances, and the amount participants would be willing to invest in the start-up. Each of the business plans described a start-up in a different sector – cosmetics production, local travel agency and IT – where men's and women's chances of success may be perceived differently. Following the Goldberg paradigm, half of the sample received business plans presented as written by women and half by men, otherwise the business plans were identical. Preliminary results confirm that gender biases are present in the female-specific domains (male evaluators rate female plans more positively when business plans relate to the manufacturing of nature cosmetics). We also confirm that more traditional views of gender roles are negatively related to evaluations of female applicants and their business plans.

# Industrial relations and unemployment benefit schemes in the Visegrad countries during the COVID-19 pandemic

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Martin Kahanec CEU, CELSI, EUBA, GLO The COVID-19 pandemic and the ensuing economic and technological adjustment increased the risk of unemployment, underemployment and skills mismatch across Europe. These increased risks highlighted the importance of national unemployment benefit schemes for income security. This article examines the role of industrial relations in shaping unemployment benefit regimes in the Visegrad countries during the COVID-19 pandemic. We adopted an actor-oriented approach based on desk research and 12 semi-structured interviews with the representatives of trade unions and employers in all the Visegrad countries. Our research showed that the capacities of the trade unions and employers' associations to shape the unemployment benefit regimes were rather limited. State control over social policy remained very strong and shaped the dynamics of industrial relations, without inclusive involvement of social partners. National governments sought to implement measures to protect employment (mainly wage subsidies), rather than to reform existing unemployment support regimes.

#### Session V., Stream A: Political economy

# The influence of independent local parties on debt and spending: Evidence from Dutch municipalities

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We analyze whether independent local parties affect local public finances in Dutch municipalities using a matching strategy. Our main research question is whether local parties make different decisions on municipal finances compared to their national counterparts. Our method allows us to compare municipalities that are similar in their observable characteristics except for the presence of a local party majority in the municipal council. We provide evidence that shows that municipalities with local majorities indeed differ in terms of local spending, specifically they spend more on categories that are arguably more "local-oriented". We find significant differences in spending on public health and environmental affairs, local public administration and sport, culture and recreation.

# Political Parties' Ideological Bias and Economic Policy Divergence

#### Zeeshan Hashim

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#### Jan Fidrmuc Université de Lille, Lille – France

Sugata Ghosh Brunel University London This paper investigates the effect of political parties' ideological differences on three economic policy outcomes economic growth, inflation, and income inequality in democratic economies. We investigate two channels - economic voting and the median voter hypothesis – that can lead to policy convergence. However, differences in voters' preferences, their partisan bias and information asymmetry are the factors that can lead to policy divergence. Moreover, institutional and economic constraints (i.e., globalisation) cannot let the divergence be wider. The preliminary results using pooled OLS and fixed effect methods show that policy convergence between the political left and right exists when both follow market-oriented policies. In the parliamentary system, rightist governments outperform leftists in high growth and low inflation. Moreover, income inequality increases in both ideologies' governments. This paper contributes to filling three gaps especially. First, the existing literature exploring economic policy convergence has mixed findings. Second, non-OECD democracies have largely been ignored so far. Third, endogeneity, mainly due to economic voting and omitted variable bias, is not adequately addressed.

# Who Believes in Conspiracy Theories, and Why?

#### Jan Fidrmuc

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Olga Zajkowska University of Warsaw On 10th April 2010, the Polish presidential plane crashed near Smolenks, Russia. The official Polish and Russian investigations attributed the crash to pilot error compounded by bad weather. Many Poles, however, believe that the crash was the result of a conspiracy. We use this event and unique panel dataset to investigate which socioeconomic characteristics predispose switches in beliefs in conspiracy theories. We find that those inclined to accept a conspiracy theory tend to display similar characteristics as those who abandon conspiracy beliefs. Adopting and shedding conspiracy beliefs are similar processes: conspiracy believers are open to persuasion and manipulation. Effective education and communication could reverse the spread of conspiracy theories.

#### Session V., Stream B: Econometrics

# Learning Probability Distributions in Macroeconomics and Finance

#### Lubos Hanus

Czech Academy of Sciences

### Jozef Barunik

Academy of Sciences of the Czech Republic We propose a deep learning approach to probabilistic forecasting of macroeconomic and financial time series. Being able to learn complex patterns from a data rich environment, our approach is useful for a decision making that depends on uncertainty of large number of economic outcomes. Specifically, it is informative to agents facing asymmetric dependence of their loss on outcomes from possibly non-Gaussian and non-linear variables. We show the usefulness of the proposed approach on the two distinct datasets where a machine learns the pattern from data. First, we con- struct macroeconomic fan charts that reflect information from high-dimensional data set. Second, we illustrate gains in prediction of stock return distributions which are heavy tailed, asymmetric and suffer from low signal-to-noise ratio.

# Sample Fit: Random Sample Reliability

Gabriel Okasa EPFL

Kenneth A. Younge *EPFL* 

Researchers frequently test model fit by holding data constant and varying the model. We propose Random Sample Reliability (RSR) as a framework of computational methods to test sample fit by holding the model constant and varying the data. Bootstrapping, for example, re-samples data to estimate uncertainty around parameters of a model; Random Sample Reliability re-samples data to estimate the reliability of observations of a sample. RSR can be used to sort the reliability of every observation within the sample, test the sensitivity of results to atypical observations, and estimate a consensus fit between the model and a sub-sample (or weighted sample) where the analysis is more robust. We replicate two empirical studies with treatment effects to illustrate how RSR provides new insights about each study.

# Locally Persistent Economic Time Series

# Lukas Vacha

UTTA AV CR

### Jozef Barunik

Academy of Sciences of the Czech Republic This paper studies time variation in persistence of economic variables. We suggest how to decompose a locally stationary process into independent components with heterogeneous degrees of persistence. To identify time-varying transitory and persistent components of a time series, we propose localized Wold decomposition working with heterogeneous persistence structures. In an empirical example we explore the evolving transitory and persistent nature of stock market volatility. A localized model based on the proposed persistence decomposition improves the forecasting significantly.